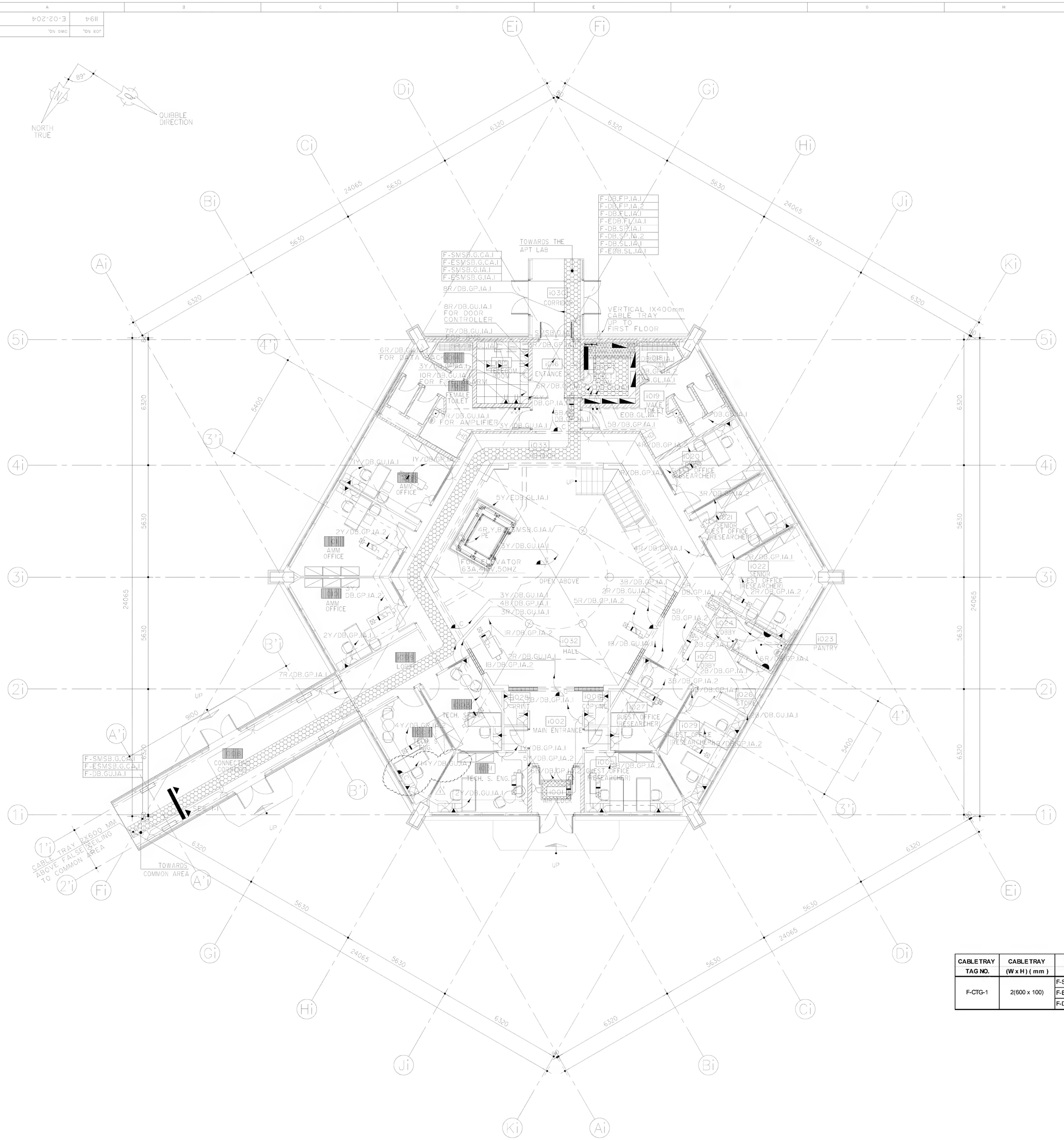
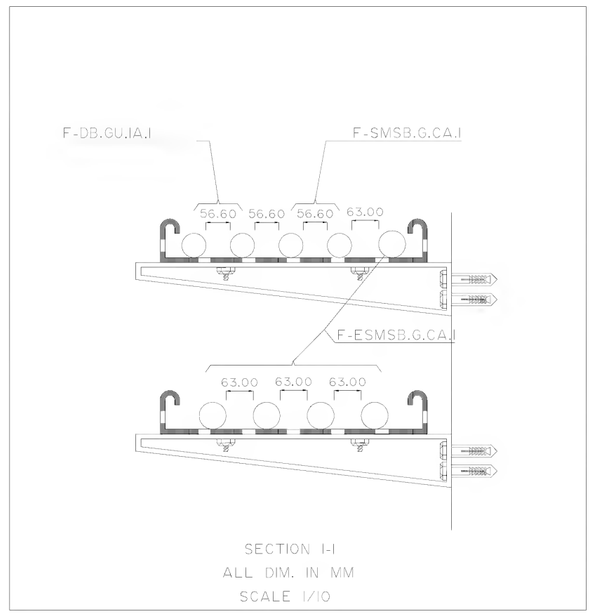



NOTES:

1. ALL 13 AMP SOCKET OUTLET CIRCUITS IN 3 NOS AND MORE SHALL BE CONNECTED TO A RING CIRCUIT.
2. ALL SOCKET OUTLETS IN DAMP AREAS SHALL BE WEATHERPROOF AND PROTECTED WITH A 30mA SENSITIVITY RCD.
3. ALL EQUIPMENT MOTORS SHALL BE PROVIDE WITH LOCAL ISOLATING SWITCHES OR EMERGENCY LOCK OFF STOP BUTTON.
4. WALL OUTLETS IN PRINCIPLE SHALL BE INSTALLED AT 450mm ABOVE FINISHED FLOOR LEVEL EXCEPT WHERE NOTED OTHERWISE.
5. 16A AND 32A OUTLET TO BE INSTALLED 1.4m ABOVE FINISHED FLOOR
6. CONVENTIONAL SOCKET OUTLETS FED FROM EMERGENCY PANELS OR UPS SHALL BE SELECTED WITH DIFFERENT COLOUR COVER PLATES ACCORDING TO ENGINEER APPROVAL.
7. WIRE SIZES SHALL BE STRICTLY FOLLOWED ACCORDING TO THE INDICATED SIZES SHOWN IN PANEL DETAILS, WIRES SHALL BE COLOR CODED AS SPECIFIED
8. WIRING FOR NORMAL AND EMERGENCY CIRCUITS SHALL BE TOTALLY SEGREGATED. THIS IS INCLUDING PANELS, RACEWAYS, WIRES, BOXES, SWITCHES ,ETC, UNLESS OTHERWISE NOTED.
9. WIRING FOR SMALL POWER AND LOW CURRENT CIRCUITS SHALL BE TOTALLY SEGREGATED. THIS IS INCLUDING PANELS, RACEWAYS, WIRES, BOXES, SWITCHES ,ETC.
10. ALL ISOLATORS DESIGNATED FOR ELECTRIC APPLIANCES OR EQUIPMENT SHALL BE LABELED WITH THE EQUIPMENT REFERENCE OR TAG
11. CONDUITS INSTALLATIONS SHALL BE AS PER SPECS.
12. ISOLATOR SWITCH SHALL BE INSTALLED FOR ANY REMOTE EQUIPMENT ADJACENT TO IT BEFORE TERMINATION, FOR MAINTENANCE SAFETY. RATING, VOLTAGE AND NUMBER OF POLES SHALL BE SUITABLE FOR THE EQUIPMENT SERVED
13. FIGURE SHOWN ON HOME RUN INDICATES THE CIRCUIT REFERENCE FROM THE DESIGNATED PANEL BOARD TO THE CIRCUIT.
14. THE CONTRACTOR SHALL SUBMIT PANEL BOARDS DETAILS along WITH THE REQUIRED SUBMITTALS AND SHOP DRAWINGS SHOWING:
    - CIRCUIT REFERENCE SHOWN ON LAYOUTS
    - ACTUAL LOAD OF EACH CIRCUIT PER PHASE IN VA
    - SUMMATION OF EACH PHASE LOAD ASSURING 3 PHASE LOAD BALANCE
    - AREAS SERVED BY EACH CIRCUIT
    - RATING OF ALL COMPONENTS
    - WIRE SIZE AND NO. OF WIRES
    - SCHEMATIC DIAGRAMS FOR CONTROL CIRCUITS , IF ANY
    - ENCLOSURE AND BUSES SPECIFICATIONS
15. UNDER FLOOR TRUNKING SYSTEM
    - TYPE AND SIZE OF UNDER FLOOR TRUNKING SYSTEM INCLUDING SERVICE BOXES SHALL BE SUITABLE FOR THE SCREED DEPTH AVAILABLE AT THE AREA OF INSTALLATION (COORDINATE WITH ARCH. DRAWINGS).
    - COVERS OF SERVICE BOXES SHALL HAVE THE COLOUR AND RECESS DEPTH MATCHING WITH THE TYPE AND FINISH OF FLOOR/CARPET/TILES AT THE LOCATION OF INSTALLATION.
    - LOCATION OF THE VERTICAL ACCESS BOX AND VERTICAL RISERS SHOWN AT VARIOUS AREAS IS ONLY INDICATIVE, EXACT LOCATION OF THE SAME SHALL BE DETERMINED AT SITE IN CO-ORDINATION WITH ALL OTHER SERVICES AND TO CONSULTANT APPROVAL. INSTALLATION SHALL BE SUCH THAT IT SHALL BE HIDDEN FROM THE VIEW AND MERGE WITH THE SURROUNDING FINISH AND ARCHITECTURAL FEATURES. CONTRACTOR SHALL ALLOW ADDITIONAL FLOOR JUNCTION BOXES FOR REROUTING THE UNDER FLOOR TRUNKING IN ORDER TO ACHIEVE THE SAME.
16. WIRING OF LIGHT POINTS AND WIRING OF THE POWER OUTLETS IN THE CEILING FOR VAV/FCU ETC. SHALL BE CARRIED OUT USING PVC CONDUITS EMBEDDED IN CONCRETE SLAB
17. WIRING OF SMALL POWER OUTLETS OF OFFICES SHALL BE CARRIED OUT USING GI TRUNKING WITHIN FALSE CEILING
18. CONCEALED 25mm ø CONDUIT FROM THE SOCKET OUTLET SHALL BE CONNECTED TO THE GI TRUNKING WITHIN FALSE CEILING USING GI CIRCULAR BOX, PVC COVERED GI FLEXIBLE CONDUIT AND ACCESSORIES INCLUDING MALE CONNECTOR, FEMALE BUSH ETC. A SPACE FACTOR OF 40% SHALL BE TAKEN IN SIZING THE GI TRUNKING
19. SIZES OF THE CABLE TRAY AND CABLE TRUNKING SHOWN AT THE VARIOUS AREAS ARE ONLY INDICATIVE AND THE MINIMUM REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE ABOVE SIZES AND TO PROVIDE THE REQUIRED SIZES AS PER ACTUAL SITE CONDITIONS, IN ACCORDANCE WITH SPECIFICATION AND TO CONSULTANT APPROVAL.
20. CONTROL PANELS FOR ALL MECHANICAL EQUIPMENT SHALL BE AS SPECIFIED IN THE RELEVANT SECTIONS OF THE MECHANICAL & ELECTRICAL SPECIFICATIONS.
21. FOR NO. OF DATA AND VOICE OUTLET IN FLOOR BOXES REFER TO LIGHT CURRENT DRAWING
22. FOR EXACT LOCATION AND POWER CONSUMPTION FOR A/C UNITS REFER TO HVAC DRAWINGS.
23. FOR EXACT LOCATION AND POWER CONSUMPTION FOR EWH REFER TO PLUMBING DRAWINGS.
24. THE CONTRACTOR SHOULD COORDINATION THE LOCATIONS OF THE OUTLETS WITH THE FURNITURE LAYOUT PLANS.
25. ALL POWER OUTLETS FEED THE SPECIAL SYSTEMS SHALL BE DEDICATED TO THE EXACT LOCATION OF THE LIGHT CURRENT OUTLETS.

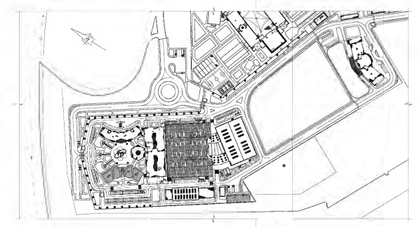



| CABLE TRAY TAG NO. | CABLE TRAY (W x H) ( mm ) | FEEDER TAG NO | FED FROM PANEL BOARD | FEEDING PANEL BOARD | CABLE C.S.A (mm2) | CABLE TYPE | CABLE DIAMETER (mm) |
|---|---|---|---|---|---|---|---|
| F-CTG-1 | 2(600 x 100) | F-SMSB.G.CA.1 | MDB.CA.1 | SMSB.G.CA.1 | 2(4c-185) | CU/XLPE/SWA/PVC | 56.6 |
| | | F-ESMSB.G.CA.1 | EMDB.CA.1 | ESMSB.G.CA.1 | 5(4c-240) | CU/XLPE/SWA/PVC | 63 |
| | | F-DB.GU.IA.1 | USMSB.CA.1 | DB.GU.IA.1 | 2(4c-185) | CU/XLPE/SWA/PVC | 56.6 |

| REFERENCE DRAWINGS | DWG NO. |
|---|---|
| LEGEND GENERAL NOTES | E-02-001 |
| GENERAL DETAILS (SHEET 1-2) | E-02-801 |
| GENERAL DETAILS (SHEET 2-2) | E-02-802 |
| LOW VOLTAGE SINGLE LINE DIAGRAM | E-02-901 |
| PANEL BOARD SCHEDULES (SHEET 1-2) | E-02-902 |
| PANEL BOARD SCHEDULES (SHEET 2-2) | E-02-903 |

LEGEND:-

| TYPE | SYMBOLS | DESCRIPTION |
|---|---|---|
| S01 | | 3 COMPARTMENT FLOOR FLUSH SERVICE BOX (250x250mm) SUITABLE FOR UNDER FLOOR TRUNKING SYSTEM WITH 2 No. 13A TWIN SWITCHED SOCKET OUTLETS AND AS PER SPECIAL SYSTEMS No. TWIN RJ45 OUTLETS |
| S02 | | 13A, 240V, 2P+E SWITCHED SOCKET OUTLET |
| S03 | | 13A, 240V,TWIN SOCKET 2P+E SWITCHED SOCKET OUTLET |
| S04 | | 13A, 240V, 2P+E WEATHER PROOF SWITCHED SOCKET OUTLET IP55 MINIMUM |
| S05 | | 16A, 240V, 2P+E , INDUSTRIAL TYPE SOCKET OUTLET |
| S06 | | DITTO AS S03 BUT WITH DIFFERENT COLOR FED FROM UPS PANEL |
| S07 | | 20A, 240V, 50HZ 3P SWITCH WITH NEON INDICATION |
| S08 | C | 13A, 240V, 2P+E SWITCHED SOCKET OUTLET ABOVE FALSE CEILING FOR CCTV CAMERA |
| S09 | A/V | 13A, 240V, 2P+E SWITCHED SOCKET OUTLET FOR AUDIO VISUAL RACK |
| S10 | P | 13A, 240V, 2P+E SWITCHED SOCKET OUTLET ABOVE FALSE CEILING FOR OVERHEAD PROJECTOR |
| S11 | S | 13A, 240V, 2P+E SWITCHED SOCKET OUTLET ABOVE FALSE CEILING FOR MOTORIZED SCREEN |
| S12 | | FLOOR MOUNTED 2P+E SWITCHED SOCKET OUTLET 40A, 240V WITH SAFETY SHUTTERS IP54, FED FROM UPS |
| IS1 | | SINGLE PHASE ISOLATOR ABOVE FALSE CEILING WITH FLEX OUTLET RATING SAME AS FEEDING BREAKER |
| IS2 | | THREE PHASE ISOLATOR RATING AS SHOWN ON DRAWINGS |
| IS3 | | THREE PHASE ISOLATOR WEATHER PROOF RATING AS SHOWN ON DRAWINGS IP54 |
| HD | HD | JUNCTION BOX INSTALLED BEHIND HAND DRYER CONTROLLED BY REMOTE DP-SW |
| WH | WH | ELECTRICAL WATER HEATER |
| | | VERTICAL ACCESS BOX FOR 3 COMPARTMENT UNDER FLOOR TRUNKING (SIZE-300x200mm+50mm) COVER IN FLUSH WITH THE WALL |
| | SMSB | SUB MAIN SWITCHBOARD |
| | | FINAL DISTRIBUTION BOARD |
| | | UPVC CONDUIT CONCEALED IN CONCRETE OR GROUND |
| | | DITTO AS ABOVE BUT FOR UPS CIRCUITS |
| | | 3 COMPARTMENT GI UNDER FLOOR TRUNKING WITH EACH COMPARTMENT SIZE OF 75x25mm (BRANCH TRUNKING) |
| | | M.B.D.U CABLE TRAY ABOVE FALSE CEILING SIZE AS SHOWN ON THE DRAWING |
| | | VERTICAL CABLE TRAY |



KEY PLAN

CLIENT :

ADNOC
أدنوك
شركة بترول أبوظبي الوطنية

| PROJ TEAM | | | | | | | |
|---|---|---|---|---|---|---|---|
| G.F | M.F | K.S | M.N | M.N | ISSUED FOR ADDENDUM No.1 | 26/11/08 | 1 |
| G.F | M.F | K.S | M.N | M.N | ISSUED FOR TENDER | 15/10/08 | 0 |
| APPROVED | | JOB ENG | CHK | BY | REVISIONS | DATE | REV NO. |

PROJECT :

BOROUGE INNOVATION CENTER
IN ABU DHABI
AGREEMENT NO:115984DI - PROJECT NO.5984

END USER :

بروج
Borouge

CONSULTANT :

ECG
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INNOVATION TOWER

SMALL POWER LAYOUT PLAN
GROUND FLOOR

| SCALE | JOB NO | DWG NO | REV NO. |
|---|---|---|---|
| 1/100 | 1194 | E-02-204 | 1 |

FILENAME